

REMARKS

The abstract and specification have been amended in order to correct grammatical and idiomatic errors contained therein. No new matter has been added.

In order to expedite the prosecution of the present application, Claims 5 and 6 have been canceled and replaced by newly presented Claims 8 and 9 which more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. No new matter has been added. It is respectfully submitted that the presently claimed invention is clearly patentably distinguishable over the prior art cited by the Examiner.

The presently claimed invention is directed to a method of producing a carbon nanoballoon structure having a hollow portion which comprises the step of heating carbon black having a specific surface area of at least 1000 m²/g and a primary particle diameter of at least 20 nm to a temperature of at least 2000°C in an inert gas atmosphere. The present invention also provides an opening having a diameter of 0.1 to 50 nm which extends to the hollow portion by oxidizing the carbon nanoballoon structure having a hollow portion in an oxygen-containing atmosphere.

The present invention allows for the production of a hollow carbon nanoballoon structure which has a relatively large closed space. The carbon nanoballoon structure has a graphite outer shell and exhibits excellent electrical conductivity, lubricity and chemical resistance and has a high heat-resistance and chemical stability. Due to the carbon nanoballoon structure being hollow, it also exhibits a low bulk density and excellent insulating properties. It is respectfully submitted that the presently claimed invention is patentably distinguishable over the prior art cited by the Examiner.

The Xu et al reference was received on October 1, 2004 and published in 2005 as "New Diamond and Frontier Carbon

Technology, Vol. 15, No. 2, 2005." The present application is based on Japanese priority document JP 2004-097875, having a filing date of March 30, 2004. In order to perfect Applicants' foreign priority date, enclosed herewith is a certified English-language translation of the foreign priority document which perfects Applicants' priority date of March 30, 2004 and removes Xu et al as a reference against the present application.

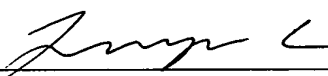
The Takikawa reference discloses the use of an arc discharge to prepare a monolayer carbon nanotube. This reference does not disclose the steps of the presently claimed invention which requires heating carbon black having a specific surface area and primary particle diameter at a temperature of 2000°C or more in an inert gas atmosphere. The Takikawa et al reference uses a soot obtained by the arc discharge of carbon electrodes which is expressly different from that of the present invention. As such, it is respectfully submitted that the presently claimed invention clearly is patentably distinguishable thereover.

Also enclosed herewith is an Information Disclosure Statement containing the first page of references cited during the Japanese and Chinese patent prosecution of the present invention.

Favorable consideration is respectfully solicited.

Respectfully submitted,

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